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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/787,525

02/26/2004

Gerhard J. Mueller

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09/15/2004

REED SMITH, LLP

ATTN: PATENT RECORDS DEPARTMENT

599 LEXINGTON AVENUE, 29TH FLOOR

NEW YORK, NY 10022-7650

EXAMINER

NGUYEN, THONG Q

ART UNIT

PAPER NUMBER

2872

DATE MAILED: 09/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/787,525	Applicant(s) MUELLER ET AL.	
	Examiner Thong Q Nguyen	Art Unit 2872	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 May 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-5,8-11,13 and 16-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-5,8-11,13 and 16-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 February 2004 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 09/658,321.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The present Office action is made in response to the pre-amendment filed on 5/19/2004.

2. It is noted that in the mentioned pre-amendment, applicant has made amendments to claims 1, 19 and 20, and canceled claims 2, 6-7, 12 and 14-15. The remaining claims 1, 3-5, 8-11, 13 and 16-20 are examined in this Office action.

Priority

3. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. 09/658,321, filed on 9/8/2000. ***Drawings***

4. The drawings contain two sheets of figures 1-2 were received on 2/26/2004. These drawings are objected by the Examiner for the following reason.

5. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the feature concerning the diaphragms, the prisms, polarizers, etc... as recited in claim feature concerning the diaphragms, the prisms, polarizers, etc... as recited in claim 4 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure

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number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

6. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

7. The incorporation of essential material in the specification by reference to a foreign application or patent, or to a publication is improper. Applicant is required to amend the disclosure to include the material incorporated by reference. The amendment must be accompanied by an affidavit or declaration executed by the applicant, or a practitioner representing the applicant, stating that the amendatory material consists of the same material incorporated by reference in the referencing application. See *In re Hawkins*, 486 F.2d 569, 179 USPQ 157 (CCPA 1973); *In re*

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Hawkins, 486 F.2d 579, 179 USPQ 163 (CCPA 1973); and *In re Hawkins*, 486 F.2d 577, 179 USPQ 167 (CCPA 1973).

The incorporation of an adaptive mirror disclosed in the foreign application DE 26 31 551 for the purpose of support for the structure of the mirror system recited in the present claim 9 is not acceptable.

Claim Rejections - 35 USC § 112

8. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

9. Claims 1, 3-5, 8-11, 13 and 16-20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

a) Claim 1 is rejected under 35 USC 112, first paragraph because the disclosure as original filed does not provide support for the device with features thereof "at least one of said two objectives...excitation light" as recited in the amended claim 1, lines 6-13). Applicant is respectfully invited to review the specification in pages 5-9 and figures 1-2 which does not disclose a microscope having the following features: 1) two objective lenses between which a light transmitting specimen is arranged; 2) a mirror followed one of the objective wherein the mirror is placed in a back focal plane (pupil plane) of the objective; a detector for receiving

fluorescent radiation wherein a transmitted excitation light and fluorescent radiation reflected by the mentioned mirror and only the fluorescent radiation reflected by the mentioned mirror and the fluorescent radiation from the specimen are reimaged on the detector without the reflected excitation light.

The Examiner is of the following opinions about the microscope as described in the present disclosure.

The disclosure as originally filed discloses two embodiments of a microscope.

The first embodiment is described in pages 5-7 and shown in figure 1. The second embodiment is described in pages 7-9 and shown in figure 2.

The use of a mirror in the pupil plane of the object is disclosed in the embodiment 1 disclosed in the specification in pages 5-7 and shown in figure 1. In particular, this embodiment discloses the use of a mirror (5) followed the objective (3) wherein the objective (3) and the mirror (5) form a reflecting device (4). It is also noted that a partial transmitted mirror (12) is optionally used in the pupil plane of the objective (2) for transmitting illuminating light but for reflecting the fluorescent light. In this embodiment, there is not any mirror being disposed at the back focal plane of the objective. It is also noted that an observation having an eyepiece is used in this embodiment. There is not any description referred to a detecting system being used in this embodiment.

The use of a mirror in the back focal plane of an objective lens is disclosed in the embodiment 2 disclosed in the specification in pages 7-9 and shown in figure 2.

See mirror (23) located at the back focal plane of the objective (21). There is not

any reflector in the pupil plane of either objective lens (20 or 21). Applicant should note that a pupil plane of a lens is different from a back focal plane of a lens. It is noted that in the embodiment 2, there is not any excitation and blocking filters be used in the illuminating system and there is not any description regarding the structure of the beam-splitter (18) and the use of an observation system. As such it is entirely unclear whether the fluorescent radiation is reflected and then reimaged onto the detector while the excitation light reflected from the mirror (23) is kept from entering the detector as claimed.

Applicant should further note that the beam-splitter of the embodiments 1 and 2 are different from each other because in the embodiment 1, the beam-splitter is labeled as "8" and is declared as a dichroic (see page 5, section [0024] and page 6, section [0027]) while in the embodiment 2, the beam-splitter is labeled as "18" and declared as a beam-splitter without any specific structure/description being provided (see page 7, section [0030]).

In the light of details provided above, the claim 1 as amended by the pre-amendment of 5/19/2004 does not have support from the disclosure as originally filed.

b) Each of claims 19 and 20 is rejected under 35 USC 112, first paragraph for the similar reason as set forth in element a) above.

c) The remaining claims are dependent upon the rejected base claim and thus inherit the deficiencies thereof.

10. The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

11. Claims 1, 3-5, 8-11, 13 and 16-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a) Claim 1 is rejected under 35 USC 112, second paragraph by the recitation thereof "at least one of said two objectives...one objective" (lines 6-8). In particular, it is unclear about the feature thereof "wherein the mirror is placed in a back focal plane (pupil plane) of said at least one objective" (lines 7-8). It is noted that since a back focal plane of a lens is different from a pupil plane of a lens, thus it is not understood from the mentioned claim language about the position of the mirror with respect to the objective as claimed.

b) Claim 4 is indefinite because the feature "other subassemblies of optical contrasting (line 2) is indefinite. What "other subassemblies" does applicant imply here?

c) Claim 13 is indefinite because the feature "the observation beam path" (line 3) lacks a proper antecedent basis. Further, applicant should note that the use of a microscope having a detector (embodiment 2 as described in the specification in pages 7-9 and shown in figure 2) does not have an observation system and the use of a microscope having an observation system (embodiment 1 as described in the specification in pages 5-7 and shown in figure 1) does not have a detector.

d) Each of claims 16 and 18 is rejected under 35 USC 112, second paragraph for the similar reason as set forth in element c) above.

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e) Each of claims 19 and 20 is rejected under 35 USC 112, second paragraph for the similar reason as set forth in element a) above

f) The remaining claims are dependent upon the rejected base claim and thus inherit the deficiencies thereof.

Claim Objections

12. Claims 5 and 10 are objected to because of the following informalities.

Appropriate correction is required.

a) In claim 5: on lines 1-2, the recitation thereof “but with a coherent illumination source” is unclear. Should the terms “but with” in the mentioned recitation be changed to –includes-- or other suitable technical term(s) to make clear the feature claimed?

b) In claim 10: on line 2, the claim recites that the electrodes communicate with a detection device. However, since in its base claim 1, the claim 1 recites a detector (see claim 1, line 9); as a result, it is unclear whether the detection device of claim 10 is the detector of claim 1 or not. The Examiner is of opinion that the terms “a detection device” of claim 10, line 2 should be changed to –said detector—so that the feature of claim 10 has a proper antecedent basis from the specification and the claim 1.

Conclusion

13. The references are cited as of interest in that each discloses a microscope having an illuminating system. It is noted that the use of two objective lens system disposed on opposite sides of a specimen wherein one mirror is disposed after one of

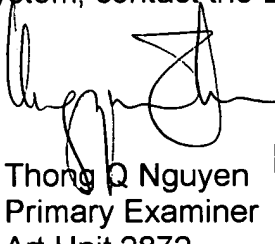
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the objective lens system is provided in each of the U.S. Patent Nos. 4,515,445 and 5,035,476 and the Japanese reference No. 5-288992; however, the mentioned references each does not disclose all of the features related to the components and their arrangements in the light path of the microscope having a detecting system for detecting/receiving fluorescent radiation from the specimen.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thong Q Nguyen whose telephone number is (571) 272-2316. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew A Dunn can be reached on (571) 272-2312. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Thong Q Nguyen
Primary Examiner
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